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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,101	08/13/2003	Robert Lance Cook	25791.50.06	6496

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HAYNES AND BOONE, LLP
901 MAIN STREET
SUITE 3100
DALLAS, TX 75202

EXAMINER	
GAY, JENNIFER HAWKINS	
ART UNIT	**PAPER NUMBER**
3672	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/644,101	COOK ET AL.	
	Examiner	Art Unit	
	Jennifer H. Gay	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-39 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-14,17-23 and 26-39 is/are rejected.

7)☒ Claim(s) 15,16,24 and 25 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 13 August 2003 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/24/03, 10/27/03, 10/28/03, 9/1/04, 1/14/05, 1/18/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the extendable or intermediate portion of the expandable shoe having an outer circumference or diameter that is larger than the remainder of the shoe as recited in claims 4, 9, 31, and 32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because the abstract is not considered to be an adequate description of the claimed invention. Correction is required. See MPEP § 608.01(b).

3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a

basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

(1) if a machine or apparatus, its organization and operation;

(2) if an article, its method of making;

(3) if a chemical compound, its identity and use;

(4) if a mixture, its ingredients;

(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

4. The disclosure is objected to because of the following informalities: the Cross-Referenced Application Data and all other references to US Patent Applications should be updated to include the status of the applications and on page 6, paragraph [0035], "\" should be deleted from the end of the paragraph.

Appropriate correction is required.

Claim Objections

5. Claims 13-30, 33, 34, 36, 37, 38, and 39 are objected to because of the following informalities:

- Claims 13 and 22 are objected to because "a fluidic material" in line 7 of each claim should be changed to --a second fluidic material--.

- Claims 13-30 are objected to because claims 13-21 are identical to claims 22-30. One set of claims should be deleted or amended.
- Claims 33 and 38 are objected to because they are identical.
- Claims 34 and 39 are objected to because they are identical.
- Claims 36 and 37 are objected to because they are identical.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 4, 9, 10, 13, 17-22, 26-30, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0881354 A2 (referred to hereafter as Vercaemen).

Regarding claims 1, 35: Vercaemen discloses an apparatus for forming a wellbore casing in a borehole that includes a preexisting wellbore casing. The apparatus includes the following features:

- A support member **15** including a first fluid passage.
- An expansion cone **14** coupled to the support member and including a second fluid passage coupled to the first.
- An expandable tubular liner **12** movably coupled to the expansion cone.
- An expandable shoe **13** that defines an interior region for containing a fluidic material where the shoe is coupled to the liner.

Regarding claims 2, 10: The shoe includes a valveable fluid passage **17** for controlling the flow of the material out the shoe.

Regarding claims 4, 9: The shoe includes an expand portion, and a remaining portion coupled to the expandable portion, i.e. the portion that is not yet expanded. The

outer circumference of the expandable portion is greater than the outer circumference of the remaining portion.

Regarding claims 13, 22, 36, 37: Vercaemen discloses a method for forming a tubular structure in a wellbore. The method involves the following steps:

- Installing a tubular liner **12**, an expansion cone **14**, and a shoe **13** in the borehole.
- Radially expanding at least a portion of the shoe by injecting a fluidic material into the shoe.
- Radially expanding at least a portion of the tubular line by injecting a fluidic material into the borehole below the expansion cone.

Regarding claim 17, 26: Though not specifically disclosed, a portion of the preexisting case would inherently be expanded to some degree.

Regarding claims 18, 27: The method further involves overlapping a portion of the liner with a portion of preexisting tubing to provide a load bearing interface and fluidic seal (2:20-30).

Regarding claims 19, 21, 28, 30: The inside diameter of the expanded shoe is equal to the inside diameter of the expanded liner. The inside diameter of the liner is equal to the inside diameter of the nonoverlapping portion of the preexisting tubing.

Regarding claims 20, 29: An axial force is applied to the expansion cone as it is driven upward.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 2, 5-8, 11, 12, 14, 23, 31-34, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vercaemen in view of Nobileau (US 5,794,702).

Regarding claims 2, 14, and 23: Vercaemen discloses all of the limitations of the above claims except for the expansion cone being expandable.

Nobileau discloses an apparatus similar to that of Vercaemen. Nobileau further teaches the use of an expandable, expansion cone **31**.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the expansion cone of Vercaemen so that it was expandable as taught by Nobileau in order to have ensured proper expansion of the expandable tubing and shoe as well as to have ensured that the expandable tubing and show were expanded into any recesses or washouts in the wellbore walls.

Regarding claims 5-8, 11, and 12: Vercaemen discloses all of the limitations of the above claims except for the expandable shoe including corrugations or folds.

Nobileau further teaches that the expandable shoe includes corrugations and folds (Figures 2-7).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the expandable shoe of Vercaemen to include corrugations and folds as taught by Nobileau in order to have been able to place larger tubing in the wellbore than an unfolded tubing or shoe would have allowed. This would have resulted in full and adequate expansion of the tubing or shoe.

Regarding claims 31 and 32: Vercaemen discloses an apparatus for forming a wellbore casing in a borehole that includes preexisting casing. The apparatus includes the following features:

- A support member **15** including a first fluid passage.
- An expansion cone **14** coupled to the support member and including a second fluid passage coupled to the first.
- An expandable tubular liner **12** movably coupled to the expansion cone.
- An expandable shoe **13** that defines an interior region for containing a fluidic material where the shoe is coupled to the liner. The shoe includes a valveable fluid passage **17** for controlling the flow of the material out the shoe, an expand portion, and a remaining portion

coupled to the expandable portion, i.e. the portion that is not yet expanded. The outer circumference of the expandable portion is greater than the outer circumference of the remaining portion.

Vercaemen discloses all of the limitations of the above claims except for the expansion cone being expandable.

Nobileau discloses an apparatus similar to that of Vercaemen. Nobileau further teaches the use of an expandable, expansion cone **31**.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the expansion cone of Vercaemen so that it was expandable as taught by Nobileau in order to have ensured proper expansion of the expandable tubing and shoe as well as to have ensured that the expandable tubing and show were expanded into any recesses or washouts in the wellbore walls.

Vercaemen discloses all of the limitations of the above claims except for the expandable shoe including corrugations or folds.

Nobileau further teaches that the expandable shoe includes corrugations and folds (Figures 2-7).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the expandable shoe of Vercaemen to include corrugations and folds as taught by Nobileau in order to have been able to place larger tubing in the wellbore than an unfolded tubing or shoe would have allowed. This would have resulted in full and adequate expansion of the tubing or shoe.

Regarding claim claims 33, 34, 38, and 39: Vercaemen discloses a method for forming a tubular structure in a wellbore. The method involves the following steps:

- Installing a tubular liner **12**, an expansion cone **14**, and a shoe **13** in the borehole.
- Radially expanding at least a portion of the shoe by injecting a fluidic material into the shoe.
- Lowering the expansion cone into the radially expanded portion of the shoe.

- Radially expanding at least a portion of the tubular line by injecting a fluidic material into the borehole below the expansion cone.
- Overlapping a portion of the liner with a portion of preexisting tubing to provide a load bearing interface and fluidic seal.
- The inside diameter of the expanded shoe is equal to the inside diameter of the expanded liner.
- The inside diameter of the liner is equal to the inside diameter of the nonoverlapping portion of the preexisting tubing.

Vercaemen discloses all of the limitations of the above claims except for the expansion cone being expandable.

Nobileau discloses an apparatus similar to that of Vercaemen. Nobileau further teaches the use of an expandable, expansion cone **31**.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the expansion cone of Vercaemen so that it was expandable as taught by Nobileau in order to have ensured proper expansion of the expandable tubing and shoe as well as to have ensured that the expandable tubing and show were expanded into any recesses or washouts in the wellbore walls.

Vercaemen discloses all of the limitations of the above claims except for the expandable shoe including corrugations or folds.

Nobileau further teaches that the expandable shoe includes corrugations and folds (Figures 2-7).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the expandable shoe of Vercaemen to include corrugations and folds as taught by Nobileau in order to have been able to place larger tubing in the wellbore than an unfolded tubing or shoe would have allowed. This would have resulted in full and adequate expansion of the tubing or shoe.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No. 6,470,966. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims contain essentially the same subject matter. The correlation between the claims is as follows:

- Claims 1 and 3 – Claim 1 of U.S. Patent No. 6,470,966.
- Claim 2 – Claim 5 of U.S. Patent No. 6,470,966.

Allowable Subject Matter

12. Claims 15, 16, 24, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer H Gay
Patent Examiner
Art Unit 3672

JHG
August 16, 2005